Engineer Combat in Korea and Vietnam

Bridging the Hantan River along the central front, April 1951.

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Sergeant George Libby.

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Surveying for a shorter ammunition supply route, December 1951.

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The rugged terrain of the Korean peninsula and the numerical superiority of enemy forces there made engineer construction and combat vital to the U.S. Army during the Korean War. Surprised by the North Korean attack across the 38th parallel, U.S. Army troops in Korea and the Republic of Korea's forces could at first do no more than delay the advance of the larger North Korean forces. U.S. Army engineers played a major role in this delaying action, mining roads and destroying key bridges. In this early fighting, engineers were frequently called upon to do tasks not traditionally theirs. Thus it was members of Company C, 3d Engineer Combat Battalion, that on July 20, 1950, made the first verifiable combat use near Taejon of the newly developed 3.5-inch rocket launcher, using it to destroy a tank that was threatening their division commander.

Attempting to withdraw from Taejon that evening, U.S. forces were stopped for a time by enemy roadblocks. Engineer Sergeant George Libby placed wounded men on an artillery tractor and used his body to shield its driver as it crashed through two enemy roadblocks before reaching American lines to the south. Libby, who died of his wounds, was posthumously awarded the Medal of Honor.

After U.S. Army engineers destroyed the bridges over the wide Naktong River in the southeastern corner of Korea on August 2-3,

Building a Bailey bridge in Vietnam.

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Engineers prepare to blow a bridge in North Korea, to slow enemy advance, December 1950.

1950, the outnumbered American forces maintained a long defensive perimeter around Pusan as General Douglas MacArthur prepared to land a large body of U.S. troops behind enemy lines at Inchon. Engineers were frequently committed to fight as infantry on the Pusan perimeter. Private Melvin Brown of the 8th Engineer Combat Battalion was awarded the Medal of Honor for bravely holding his position on a wall of the ancient fortress of Kasan during an enemy assault. After he had expended his ammunition, Private Brown used his entrenching tool to repel the armed attackers as they reached the top of the wall.

After MacArthur's assault at Inchon had caught the enemy by surprise, U.S. forces soon took the offensive across Korea. The bridge building and road and rail repairs undertaken by the Army engineers allowed U.S. and allied forces to push north rapidly in pursuit of the disintegrating North Korean army. Handicapped at first by tremendous shortages of supplies, these construction efforts required the engineers to make innovative use of available materials. When Chinese units began their powerful counteroffensive in November 1950, the engineers had to destroy many of the same bridges as U.S. forces again retreated south of Seoul. But lateral roads built by the engineers behind the new defensive lines proved critical when the Chinese broke through a portion of that line. These roads enabled the Americans to transport the 3d Infantry Division 100 miles in a single day to plug the hole that the Chinese had created.

As U.S. forces returned to the offensive in mountainous central Korea in early 1951, engineer units blasted cliffsides to build new roads and built aerial tramways to carry supplies to the troops. When the advancing 23d Regimental Combat Team and a French battalion were surrounded at Chipyong-ni on February 13, 1951, by an attacking force apparently comprised of three Chinese divisions, the engineer company supporting the combat team fought as infantry to assist it to withstand the attacks until an American armored relief column could reach the town two days later. In early October 1951, the 2d Engineer Combat Battalion converted a rough track leading north to Mundung-ni into a road usable by tanks, enabling an American tank battalion to surprise a Chinese column attempting to relieve hard-pressed Chinese troops on Heartbreak Ridge near the 38th parallel. This interception eased the capture of the ridge by U.S. and French forces. An Army engineer construction battalion supported the 1st Marine Division in its combat in mountainous central Korea during much of 1951.

The engineers confronted a critical challenge after the summer floods of July 1952 washed out two of the five high-level bridges across the Imjin River, located a mere four miles behind the battle lines of three U.S. Army divisions. After installing two temporary floating bridges, Army engineer troops built at the less critical site an innovative low-level bridge sturdy enough to survive if overtopped by flood waters. In the center of the I Corps line, the 84th Engineer Construction Battalion erected within range of the enemy's artillery a modern commercial-type highway bridge utilizing sheet-pile cofferdams and reinforced concrete piers. Dedicated to engineer Medal of Honor winner George Libby, that bridge remains in use and retains its tactical significance 30 years after its construction. In sum, the U.S. Army engineers in Korea compiled a very creditable record of combat and wartime construction that comple-

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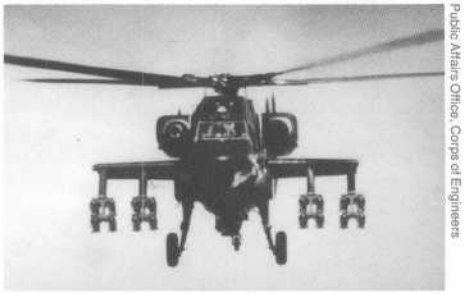
Building a "scrounge bridge" across the Pukhan River, April 1951.



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YAH-64 helicopter with anti-armor battle dress.

mented and often multiplied the combat effectiveness of the highly motorized U.S. forces engaged there.

The Army again called upon its engineers for combat support in Asia to assist the Republic of Vietnam. As in northern Korea, where Chinese troops had hidden their movements prior to their November 1950 offensive, in South Vietnam anti-government forces relied heavily upon a strategy of concealment in their combat with U.S. forces. U.S. Army operations in Vietnam thus did not occur along a well-defined front line but could break out wherever the Americans encountered guerrilla forces or North Vietnamese troops. The elusiveness of the enemy in Vietnam led U.S. Army engineers to alter in several ways the manner in which they pursued their task of enhancing the combat environment of friendly forces.

Search and destroy missions were frequently employed by American forces to attack areas of particular enemy strength. The 1st Engineer Battalion supported Operation Rolling Stone in Binh Duong Province near Saigon by building a road into the Iron Triangle and War Zone D, two staging areas frequently used by the Viet Cong. Men of this battalion engaged in a half-hour-long firefight with the enemy on February 26, 1966. The following summer a 52-bulldozer battalion task force cleared 2,700 acres of jungle, destroyed 6 miles of enemy tunnels, and demolished 11 factories and villages in the Iron Triangle.

The wide use of helicopter transport in Vietnam enabled U.S. forces to respond quickly to enemy attacks anywhere in Vietnam. After South Vietnamese forces relieved a besieged Special Forces camp at Plei Me in the Central Highlands in October 1965, an engineer company of the airmobile 1st Cavalry Division lengthened and improved an earthen airfield at a nearby tea plantation using equipment brought in by helicopter. The division then pursued the attacking North Vietnamese regiments west from Plei Me through the jungles of the Highlands. The division relied for forward supply and reinforcement in this campaign upon helicopter landing zones that divisional engineers quickly cleared

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Engineer mine-sweeping team.

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Combat engineers of 173d Airborne Brigade search Ding Nai River for underwater bridge.

from the jungle using chain saws and demolitions. By the time that the North Vietnamese forces engaged in this fight reached the safety of Cambodia, they had lost 1,800 men. During the next 10 months the 8th Engineer Battalion built seven airfields for the division in the Highlands, including one at a site eight miles from the Cambodian border to which all construction equipment, supplies and personnel had to be transported by helicopter. The battalion could do this because engineer planners had modified procurement orders for large earthmoving equipment to obtain machinery that could be disassembled for airlift and then quickly reassembled.

Various technological innovations aided the Army engineers in Vietnam. To combat the thick mud that could quickly disable the Army's tactical airfields in the monsoon season, the engineers employed the new T-17 membrane, a neoprene-coated fabric which they used to cover the airfields and provide them with an impermeable "raincoat." The engineers sprayed

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Installing T-17 membrane at Bao Loc.

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Engineer and Rome Plow of 60th Land Clearing Company.

peneprime, a dust palliative with an asphaltic base, onto heliport sites during the dry season to prevent dust clouds from interfering with helicopter operations.

The use by guerrilla forces of the thick forests along the nation's major transportation routes to conceal themselves before laying mines or staging ambushes impelled the engineers to clear all vegetation up to 100 yards on either side of major roadways. Finding bulldozers and flammable napalm unequal to the task, the engineers in 1967 introduced the Rome Plow, a military tractor equipped with a protective cab and a special tree-cutting blade that was sharpened daily. Lieutenant General Julian Ewell, a high field commander in Vietnam, called the Rome Plow "the most effective device" in his arsenal. A land-clearing engineer company equipped with 30 Rome Plows could clear 180-200 acres of medium density jungle each day.

The enemy's Tet Offensive early in 1968 closed for over a month several critical roads, particularly in the northern part of the Republic of Vietnam. The Army's 35th Engineer Battalion, which had concentrated on road building during its previous service in Vietnam, reopened coastal Route 1 north of Da Nang in late February 1968 while assigned to the III Marine Amphibious Force. By this time the engineers had built a sufficient number of airfields, heliports, and troop cantonments to permit them to continue to concentrate on road construction. The 27th Engineer Battalion now built a new all-weather highway from Hue west to the A Shau valley, an enemy stronghold. Engineer units in the Mekong Delta developed a clay-lime coagulation process that they used there to build durable roads from locally available materials. The engineers protected their bridges by installing extensive lighting systems and anti-swimmer and anti-mine devices using concertina wire and booms. Overall, Army engineer troops constructed roughly 900 miles of modern, paved highways connecting the major population centers of the Republic of Vietnam. Engineer officers also monitored the construction by private American contractors of an additional 550 miles of Vietnamese highways.

Army engineers also undertook certain responsibilities for installation security and these could involve heroic individual actions. When an enemy team infiltrated the base of the 173d Engineer Company at Camp Radcliff at An Khe in the Central Highlands on March 20, 1969, Engineer Corporal Terry Kawamura threw himself on an explosive charge that had been hurled into his quarters absorbing its blast and thereby protecting other members of his unit endangered in the attack. Corporal Kawamura was posthumously awarded a Medal of Honor.

A half-dozen Army engineer battalions participated in the Cambodian incursion in May and June of 1970. Engineers built 35 miles of new roads, 23 fixed bridges and 25 fire support bases during the attack on North Vietnamese supply points and staging areas within Cambodia. During this period the senior Army engineer officer in Vietnam, Major General John Dillard, and two other high ranking Army engineers were killed when their helicopter was shot down southwest of Pleiku. These losses were illustrative of the dedicated support which the Corps of Engineers gave to the Army during its service in Vietnam.

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Engineer tunnel demolition team.